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A bilateral, double motive perspective on stakeholder management in healthcare EIS projects

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Abstract

An important responsibility of promoters of enterprise information systems (EIS) is to manage the relations with the system's stakeholders. This is a complex task because of the increasing scope and impact of modern information technologies. In this study we propose and test a model of stakeholder cooperation in a healthcare-EIS context. The model explains effective promoter-stakeholder cooperation by acknowledging transactional as well as relational motives. In the empirical part, this Bilateral, Double Motive (BDM) model is validated by the analysis of three different cases of promoter-stakeholder cooperation. The study contributes to stakeholder theory in EIS contexts by its combined focus on transactional as well as relational motives. Furthermore, the study contributes to practice by providing a systematic way to consider cooperation in EIS projects, especially in healthcare environments.

Keywords: stakeholders; promoters; health care information systems; EIS projects; cooperation; stakeholder salience model; transactional motives; relational motives.

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1. Introduction

Promoters of enterprise information systems (EIS), such as project managers, general managers and implementers, face the challenge of managing relations with the system's stakeholders. One of their tasks is to decide with which of the stakeholders they wish to cooperate. Since information systems (IS) are becoming ubiquitous and tend to transcend organizational and geographical borders [2], modern networked IS tends to affect an increasing number of stakeholders. Therefore, promoters of EIS face the complex question with which stakeholder should one cooperate during the various phases of the system's life cycle. This is a balancing act of involving the right stakeholders at the right time. On the one hand, involving too few stakeholders can lead to a lack of support and a lack of the necessary knowledge, whereas adequate support and sufficient expertise is a prerequisite for effective system design, implementation and use. On the other hand, involving too many stakeholders can lead to unworkable situations and dysfunctional compromises which may harm the project and lead to failure.

Furthermore, cooperation is a two-way activity in which both the promoter and the stakeholder come to decisions about their mutual engagements. This means that the promoters of EIS are not the only ones who have to decide about participation and cooperation; the stakeholders around EIS face a similar dilemma. In which information system project do they wish to be involved? Involvement and cooperation with promoters of EIS consumes time and other resources which cannot be utilized in other, possibly more productive directions.

In this study, we assume that decisions of promoters and stakeholders to cooperate in EIS projects not only depend on an assessment of current issues around the system, but also on cooperation in the past and on expectations of mutual benefits in the future. In other words: transactional as well as relational factors determine the willingness of promoters and stakeholders to cooperate during EIS projects. To test this assumption, we propose and empirically validate a bilateral and double motive (BDM) model on promoter-stakeholder cooperation in EIS projects. The model is bilateral because we focus on cooperation between the promoter and a single stakeholder (-group). The 'double motive' perspective refers to transactional as well as relational motives.

We apply the model in healthcare organizations. The healthcare sector can be characterized by a broad range of stakeholders who work together in various ways to provide cure and care related services. These services are often augmented by advanced information systems. Many stakeholders of EIS in healthcare are often relatively autonomous, and can be found inside and outside a healthcare organization. In these settings, stakeholders have to decide to which extent they wish to participate in the development and implementation of enterprise information systems; the promoter of the EIS has to manage the stakeholder relations regarding the EIS project.

This study contributes to stakeholder theory because it builds on existing stakeholder models but also adds to that by proposing a combined focus on transactional as well as relational motives. The study contributes to project management and EIS theory because it adds to our knowledge on concepts of user participation and stakeholder involvement in EIS projects. Furthermore, the study contributes to the practice of EIS development and implementation by providing a systematic way to consider cooperation in EIS projects. Promoters can use this model to develop a well-grounded action plan for stakeholder involvement and stakeholder management. Stakeholders can use this perspective to assess IS initiatives and their possible contribution in a more comprehensive way.

2. Background

2.1 Stakeholder theory

The stakeholder perspective has been widely applied in a variety of disciplines and for a variety of purposes. Therefore, Parmar et al. [12] consider stakeholder theory as a genre of management theory encompassing a set of notions valuable for a variety of uses. The obvious first notion is the definition of Freeman [5, p. 46], which has gained a landmark position in the stakeholder literature: '*…a stakeholder in an organization is (by definition) any group or individual who can affect or is affected by the achievement of the organization's objectives...'*. In addition, the genre is managerial in the sense that it is *'...the executives' job to manage and shape relationships to create as much value as possible for stakeholders and to manage the distribution of that value...'* [5, p. 46]. Stakeholder theory should help managers to understand three interconnected business problems: the problem of how value is created and traded, the problem of connecting ethics and capitalism, and the problem of helping managers think about management in such a way that the first two problems are addressed [12].

A major topic in stakeholder research focusses on the classification and prioritizing of stakeholders [1]. The literature's prevailing stakeholder classification model is the salience model of Mitchell, Agle and Wood [10]. Salience is described as the degree to which managers give priority to competing stakeholder claims. Mitchell et al. [10] address the question of how managers choose their stakeholders and how they prioritize among competing stakeholder claims. Managers, they argue, perceive the various stakeholder groups differently; managers give a high priority to a stakeholder if they believe that this stakeholder has a legitimate claim, which calls for immediate action (i.e. urgent), and possesses the power to influence the organization's activities. The stakeholder who is believed to possess these three attributes, (i.e. legitimacy, urgency and power) is called a definitive stakeholder.

2.2 A stakeholder approach of EIS projects

Implementation and adoption of EIS are to a large extent dependent on how the promoters of EIS approach the concerns of its significant stakeholders [17]. In a traditional system implementation context, stakeholder management was translated in 'user participation'. Many researchers argued that user participation was linked to system success [8, 9]. The main reason is that the user possesses knowledge that is necessary to develop effective information systems. Another motive for user participation is that it contributes to user 'buy-in'. This means that users feel responsibility for the success of the project and that they develop ownership through participation.

During recent decades however, traditional notions of stakeholders have been eroded by new trends in information system development, such as package installations, outsourcing, enterprise resource planning, customer relationship management and e-business applications. Information systems tend to increase the scope from smaller, internal, and functional areas to enterprise wide systems and systems that cross company boundaries. These developments affect the number of stakeholders as well as their ability to influence the system [15].

This is clearly the case in modern health information systems. Doctors from various disciplines are typically users and hospital administrators are primary recipients of management information derived from health-IS. In addition to these groups, nurses, support departments, hospitals' IS-staff, patients, other providers of health care, insurers and regulatory agencies are other stakeholders [13]. This wider group of stakeholders is an integral part of the health information system. In a health-IS context it is increasingly difficult to determine which part of this 'sociology of technology' should be included in the promoter-

stakeholder interactions during the various phases of the system's life cycle. Recent studies indicate that common problems during EIS implementation are not technical, but stakeholder related. Put more positively: successful EIS implementation requires that promoters cooperate effectively with important internal and external stakeholder groups [17]. For EIS promoters, this raises the question which stakeholders are important, while stakeholders may ask themselves when cooperation is beneficial or most relevant.

Various researchers have identified the importance of the roles stakeholders play in EIS development and implementation [2, 11, 16]. Pan [11], for example, examined the implementation and the eventual abandonment of an electronic procurement project in an organization in Singapore. He argues that the interests of the various stakeholders should be understood thoroughly, and that the stakeholder's expectations should be managed throughout the implementation. However, there is a lack of research on how promoters of an EIS project can select stakeholders to cooperate with. Some studies have developed models that help identify [18] and categorize [13] stakeholders in a healthcare-EIS context. The proposed model of this study adds to these models by aiming to explain promoter-stakeholder cooperation. Analyzing the perspectives of both promoters and stakeholders is a complicated task but essential for understanding the cooperation necessary for developing acceptable information systems.

3. Bilateral & double motive model of stakeholder management

3.1 Key elements of the model

The purpose of the BDM model is to explain promoter-stakeholder cooperation. In this context, stakeholders are those who can affect or are affected by the information system, now or in the future [5]. Examples of stakeholders around EIS include users of the system, sponsors and managers, but also external parties such as suppliers and customers. Promoters of EIS are a special type of stakeholders. We define promoters as those whose aim and responsibility it is to actively promote the introduction of the system. Promoters are often general managers who aim to introduce a system, but they can also delegate active promotion to internal or external project managers. A key feature of the BDM model is a 2x2-perspective on promoter-stakeholder cooperation, see Figure 1.

Promoter-stakeholder cooperation (see block 1 in the figure) describes the extent to which the promoter and a stakeholder work together on a certain system related issue, whereby both parties aim at achieving an outcome that creates mutual value. The extent of cooperation can range from none (no cooperation) to a high level of cooperation. A high level of cooperation means that promoter and stakeholder spent a lot of time with each other concerning the issue. This can be in the form of discussions, consultations and other forms of decision-making. Cooperation is a two-way activity in which both promoter and stakeholder decide to engage. Therefore, the first dual perspective is the bilateral perspective, meaning that these interactions depend on the willingness to cooperate, on either side. Willingness (see blocks 5 and 9) represents each actor's intentions towards cooperation.

Promoters and stakeholders can be motivated by issue-based reasons leading to one-issue interactions or by establishing lasting relationships in which a series of sequential and cooperative exchanges are created. The first type of motives are transactional [5], the latter relational [7]. In case of transactional motives, the issue determines an actor's timeframe: solving the issue in a beneficial way is the key driver for considering cooperation. As to relational motives the actors have a long term perspective: they value cooperation on an issue as an investment in a lasting relation [14]. Rather than by the solution of the issue, an actor is more motivated by the perceived benefits of having a cooperative relation with its counterpart.

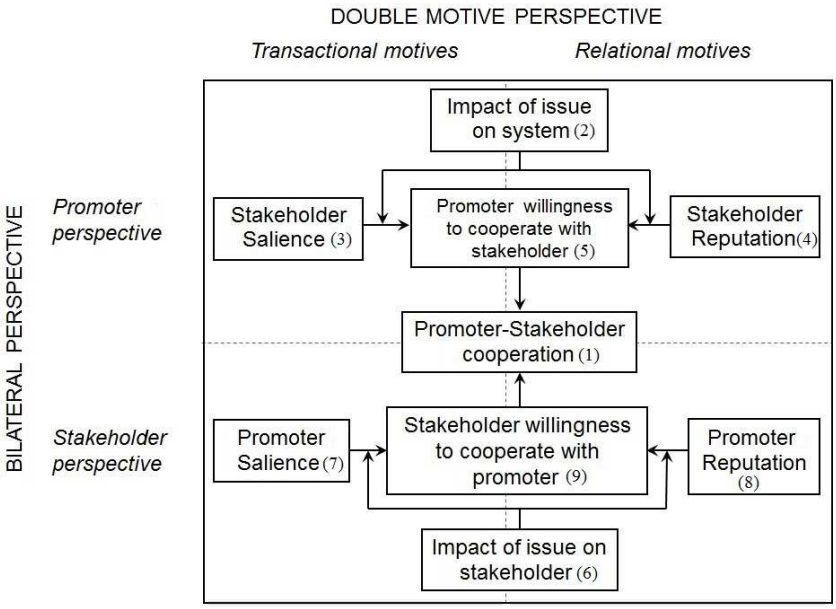

Fig.1. The bilateral, double motive (BDM) model

3.2 Promoter perspective

Our intention to explain promoter-stakeholder cooperation requires the investigation of factors that determine both actors' willingness to cooperate. In further explaining the model's building blocks, we start with the promoter side of the model (i.e., the upper half). Promoter willingness (see block 5) refers to the promoter perceiving stakeholders and deciding, based on this perception, on how to interact with them. The promoter's transactional motives concern the perception of stakeholder characteristics that ensure that cooperation on the issue is beneficial for the outcome on this specific issue. As indicated, Mitchell et al. [10] explicate the transactional motives, present within their model, in the key message of their argument: managers give a high priority to stakeholders with salient claims. As a claim is linked to a specific issue (revealed in the salience model by the use of urgency), the promoter's transactional motives to pursue cooperation with a specific stakeholder on a specific issue thus depend on their perceptions of this stakeholder's salience (block 3) regarding the issue. On the relational dimension, the promoter is more motivated by the perceived benefits (for the organization or for the promoter) of having a cooperative relation with this stakeholder. These benefits may concern gains on expected future issues (e.g. related to a following stage in the information system life cycle or to the system's wider context), but can also be more general assets, such as key resources and capabilities needed for the system. We use stakeholder reputation (block 4) as an indication for the perceived value of a relation with this stakeholder, and we assume that promoter reputation is based on both the potential benefits of the relation (i.e., the relational assets; indicated by the promoter's power and legitimacy over future issues), as well as the likelihood that these assets can be achieved (the perceived willingness to share the relational assets; indicated by the promoter's reliability). Finally, we assume that the promoter's motives to cooperate on an issue may change over time and, thus, can shift between transactional and relational, and the other way around. We use the issue impact (block 2), as perceived by the promoter, in weighing transactional and relational motives.

3.3 Stakeholder perspective

In a similar vein, stakeholders face the same dilemma as the promoter: they also have to decide whether or not to cooperate with this promoter, on this issue, this is the stakeholder willingness (block 9). Just as the promoter, the stakeholder may have two motives for this willingness: first, the straightforward, transactional reasons to become involved in the issue, in order to attempt to influence the promoter's actions and outcomes regarding the specific issue. Or, second, the willingness is based on the potential benefits of a relation with the promoter (i.e., the relational reasons). As counter part of stakeholder salience, we use promoter salience (block 7) as indicator for the stakeholder's transactional motives and again, follow Mitchell et al. [10] by assuming that promoter salience is built on the promoter's perceived power, legitimacy and urgency on the issue. As counterpart to stakeholder reputation, we use promoter reputation (block 8) referring to stakeholder's relational motives for cooperation. Similar to stakeholder reputation, we assume that promoter reputation is based on both the potential benefits of the relation (the relational assets), as well as the likelihood that these assets can be achieved, and assume that promoter reputation is based on the promoter's power and legitimacy over future issues and the promoter's reliability (the perceived willingness to share the relational assets). Similar to the promoter's motives, we assume that the stakeholder's motives to cooperate on an issue may change over time and can shift between transactional and relational, and the other way around. Again, we use the issue impact (block 6), now on the stakeholder, in weighing transactional and relational motives.

4. Research method

4.1 Case study design

We adopted a multiple case study design each consisting of contrasting promoter-stakeholder relationships to substantiate the explanatory power of our research model. We used replication logic [4, 19] to verify whether the model can explain contrasting results. We chose a qualitative design because of the exploratory characteristic of this study [3, 19]. A qualitative design also allows describing promoter-stakeholder cooperation in its context. The selection of cases was based on a combination of (1) relevance (EIS implementation in healthcare including stakeholder related issues), (2) cross case diversity (one can gain better understanding through contrasting explanatory factors), and (3) accessibility to promoters and stakeholders of the project. Accessibility required that we could gather data on all elements of the BDM model. We derived such data from different EIS-healthcare projects. The units of analysis were the EIS-related issues which could potentially lead to promoter-stakeholder cooperation. This resulted into three cases: (1) visibility, (2) standardization, and (3) investment. Each of these issues played an important role in the implementation of the EIS concerned.

4.2 Participants and data gathering

Data collection took place in 2012. To promote construct validity we followed a data collection protocol including interview questions, written reports, minutes of meetings, policy plans and observations [3]. These data were stored in a case study database. Primary data about the actual degree of promoter-stakeholder cooperation were derived from semi-structured interviews with promoters and stakeholders. The confidential semi-structured interviews consisted of open-ended questions which are directly derived from the research model [6] (see Appendix A for a number of example questions). The interviews were conducted by two researchers. Two stakeholders and two promoters were interviewed (one promoter was involved in two cases). The researchers were unable to interview the stakeholder to the investment case; this perspective is therefore

not available. The two interview protocols (one for promoters and one for stakeholders) consisted of three parts. The first part included general questions regarding personal characteristics and the individual's view on the information system. The second part focused on particular issues that might have led to promoter-stakeholder cooperation or lack thereof. The third part consisted of questions regarding the cooperation or non-cooperation and the explanatory factors that determined these interactions.

4.3 Data analysis

The recorded and transcribed interviews were analyzed by comparing those of the promoters and the stakeholders for pattern matching [6] and then allocating them to the research model. We analyzed the degree of promoter-stakeholder cooperation and how this cooperation could be explained by the various factors of the BDM model. We discussed our individual interpretations within the research team. This resulted in additional insights into the views of the promoters and stakeholders and led to refined and more comprehensive interpretations on the promoter-stakeholder cooperation. We determined the level of cooperation between promoter and stakeholder by distinguishing four levels: no cooperation, limited cooperation, a moderate amount of cooperation and a high level of cooperation. The intensity of the cooperation, and the amount of time they spent with each other, was key here, in deciding on which level of cooperation promoter and stakeholder cooperated.

4.4 Case descriptions

Three cases were drawn from two different organizations. The first case (the visibility issue) took place in a nursing home in the Netherlands. Here, an enterprise wide electronic patient record replaced physical records. During the implementation, the professional staff became aware of the increased visibility of their client and treatment information. After the implementation of the electronic patient record, professional staff members could access electronic records of all clients. These practitioners became aware of an increased visibility of their work, which resulted in resistance towards the EIS. In this case we focus on one of those professional staff members, a speech therapist who also acted as the representative of the paramedic professionals. The implementer of the electronic patient record (promoter) and the stakeholder were both staff members in the nursing home.

The second case (the standardization issue) took place at the same nursing home. The introduction of the electronic patient record meant that the practitioners had to work with standard terms, or codes, to describe the problems clients experienced. Before the implementation, health problems could be individually described, in a free text format. The electronic patient record, however, would only allow a choice from a standard list of single word descriptions. The practitioners believed in applying individual, personalized care to each client. In the eyes of the professional staff, the new system hindered this way of providing care, which resulted in staff resistance towards the system. In this case, the stakeholder was the care coordinator of one of the organization's facilities.

The third case (the investment issue) transpired in a small commercial organization in the Netherlands. The organization was specialized in developing and implementing enterprise information systems for healthcare organizations. In this case, the promoter was the CEO of this organization, and he was working on a new, innovative EIS for healthcare organizations. An opportunity to speed up the development and implementation of the new EIS presented itself by procuring a financial investment from a major health insurance organization. The stakeholder in this case was a project engineer from this major health insurance organization.

5. Results

5.1 Level of cooperation per case

The level of promoter-stakeholder cooperation within case #1, the visibility issue, was limited. They had little contact with each other and there were few instances in which they consulted each other. The level of cooperation in case #2 (the standardization issue) was high. They communicated, discussed and consulted each other regularly, in order to solve the issue. Finally, the promoter-stakeholder cooperation during the investment issue (case #3) was also high, although for other reasons than in case #2. Here, both promoter and stakeholder met each other frequently, discussing ways to improve and implement the EIS in additional healthcare organizations.

In the following section we discuss the case results in more detail, in order to explain these levels of promoter-stakeholder cooperation.

5.2 Cross-case comparison

Promoter view

The limited cooperation between the promoter and the stakeholder during the visibility issue (case #1) can be explained by a combination of the stakeholder's low salience and the promoter's low willingness to cooperate (see Table 1). The promoter stated: *"She was not that important, compared with other stakeholders. I eventually did not work a lot with her."* Despite the good reputation and capabilities of the stakeholder; the promoter assessed her salience as too low to cooperate with, in order to address this issue.

The promoter rated the stakeholder as very important in the salience dimension in the standardization issue (case # 2, see Table 1). Her position in the organization was powerful. The promoter needed someone to solve the issue at hand, meaning: someone to rally the employees in such a way that they would not resist the change. The promoter argued: *"[The stakeholder] was really very important. (…) She was the one who eventually had to get them to go a long, also in the advice towards the board, as in: 'guys, this is a good plan.' If she and a colleague had not done that, then the [EIS implementation] could not have been achieved. (…). I think that a lot of people – the top management members – value her opinion very much."*

During the management of the investment issue (case #3), the promoter perceived the stakeholder's reputation as very high (see Table 1); he expected to work together with the stakeholder in future endeavors. To illustrate this, the promoter stated: *"(…) there are numerous reasons to cooperate with each other in the future, also with the innovative environment of [the insurance company] and the connection with [the healthcare innovation organization] in mind."* Additionally, the issue at hand had a limited impact on the EIS itself, the promoter stated: *The involvement of, say [a major hospital], is much more important for the success of [the EIS] than the involvement of [the insurance company]."* Instead of searching for a highly salient stakeholder to solve this rather trivial problem, the promoter would rather team up with a stakeholder from which he could gain future benefits.

Stakeholder view

In case #1, the stakeholder perceived the promoter's salience regarding this issue as high, but the issue's impact as low (see Table 1). The salience of the promoter did not weigh heavily in her decision to cooperate with the promoter. However, she did value the reputation of the promoter, as is illustrated in her following statement: *"Say that something comes up within the department, then we can invite [the promoter] over and he will explain us how things work and how it can be improved. If we run into something, we have that*

freedom." By connecting with the promoter, the stakeholder was able to establish a future oriented relationship with him.

While dealing with the standardization issue (case #2), the stakeholder did not perceive the promoter as the ideal candidate to work with in general (see Table 1). The stakeholder mentioned: *"In this case, it sometimes happened that you did not comprehend each other, and where you simply were not talking the same language."* Although, in relation to this issue, he was the only she could approach to solve the issue. The stakeholder stated: *"You can also see how divided the knowledge is, because his knowledge is particularly technical."* The impact of the issue on her was very high: she had a personal stake in the system and additionally, her employees had to work with the EIS.

Table 1. Results of the three cases in terms of the BDM model, from promoter and stakeholder perspective

BDM model elements	Case 1. Visibility issue	Case 2. Standardization issue	Case 3. Investment issue
Promoter perspective			
Stakeholder salience	**Low**. She was fairly irrelevant.	**Very high**. She was powerful in knowledge- and hierarchical-sense.	**High**. Competent, experienced and could legitimately be involved.
Stakeholder reputation	**High**. Competent and expected future cooperation.	**Very high**. Important position in the organization and good relationship.	**Very high**. Competent and legitimate, reliable relationship.
Impact of issue on system	**Very high**. Rejection of the EIS.	**Very high**. Failure of implementation.	**Limited**. Financial stimulation not imperative.
Willingness to cooperate with stakeholder	**Low**. The speech therapists not relevant to solve the issue with.	**Very high**. She was imperative in solving the issue.	**High**. Solving issue was irrelevant. But important future benefits.
Stakeholder perspective			
Promoter salience	**High**. He only has IT-related skills. Communication issues.	**High**. He only has IT-related skills. Communication issues.	Not available.
Promoter reputation	**High**. Only skilled in IT. But valuable future benefits.	**Limited**. Only knowledge and power in the IT field. Communication issues.	Not available.
Impact of issue on stakeholder	**Limited**. The issue hardly had an impact on her.	**Very high**. She had a personal stake in the IS. Her practitioners used the IS.	Not available.
Willingness to cooperate with promoter	**High**. The future benefits made her willing to collaborate.	**Very high**. It was imperative for her to solve the issue.	Not available.
Level of cooperation	**Limited**. Low salience stakeholder, very high impact of issue on EIS.	**High**. Both were salient. Both perceived a high impact of the issue.	**High**. Low impact of issue, but a valuable reputation of the stakeholder.

6. Discussion and conclusion

The aim of this study is to validate the effectiveness of the BDM model. We demonstrate this effectiveness by explaining promoter-stakeholder cooperation in a healthcare-EIS context. Based on the results from three cases, we conclude that the model is able to explain how and on what basis promoter-stakeholder cooperation can be established. Cooperation is based on two motives regarding (1) an actor's salience to contribute to the solution of the issue, and (2) the promoter's and stakeholder's potential to add future value to the relationship. The impact of the issue on either the EIS or the stakeholder determines which of these two motives is

considered more important. If there is a mismatch between the impact of the issue and the actors' attributes (salience, reputation), there will be a low degree of cooperation, as can be observed in case #1.

The BDM model enriches the existing literature of stakeholder management in a healthcare-EIS context, by providing more insight in how and why actors cooperate with each other. The model explains why stakeholders are involved in problem-solving and decision-making, by highlighting relational as well as transactional motives. The future oriented motives of an actor are a relatively novel way of explaining cooperation. Therefore, it can be perceived as an extension to the stakeholder salience model of Mitchell, Agle and Wood [10]. Furthermore, the bilateral perspective sheds more light on how the process of collaboration is undertaken. Rather than identifying a stakeholder merely as a passive entity, the bilateral view contributes to the existing literature by recognizing that stakeholders can take active roles. In other words, the bilateral view provides a more comprehensive understanding of promoter-stakeholder cooperation.

Additionally, the BDM model provides implications for the practice of EIS implementation in healthcare. The model can be useful in systematically identifying the factors that affect the establishment of cooperation between promoters and stakeholders. Implementers of healthcare-EIS can apply this model to analyze healthcare's inherent complex stakeholder environment. Moreover, the stakeholders can use the model to assess change proposals of EIS implementers. By assessing the impact of the issue and their own salience and reputation, stakeholders can evaluate and prepare their possible involvement and potential contributions to an EIS project. Furthermore, promoters engaged in stakeholder management in other contexts can also use this model to gain a deeper understanding of the transactional and relational aspects of promoter-stakeholder relationships. The BDM model may therefore be useful during the development of strategies for stakeholder management in projects outside a healthcare environment.

The results and conclusions should be viewed in light of the study's limitations. One limitation of this research is the relatively low number of cases and respondents. A deeper understanding of promoter-stakeholder cooperation could have been achieved by extending the empirical basis of the research, including more contrasting cases. This can strengthen the results and the evidence of the model's validity. Another limitation is inherent to qualitative studies: the subjectivity of the researchers with the interpretation of the data. It is possible that some data are misinterpreted, consequentially biasing the results. Third, to explain dyads, this study was exclusively focused on one promoter and one stakeholder. However, in reality, stakeholders are interrelated [12], which means that the involvement of certain stakeholders, and the exclusion of others, may influence the relationships amongst stakeholders. This may subsequently cause changes in the whole stakeholder landscape. For example, once stakeholders become involved in an EIS project, they may become more valuable to other stakeholders. These shifts amongst stakeholders and their interrelationships may influence the dynamics of promoter-stakeholder cooperation.

Future research should examine the implications of this interrelatedness for stakeholder analysis and management. What are the effects of cooperation between promoters and stakeholders on other actors? If the relationships among stakeholders are affected, how does this influence the promoter-stakeholder relationship? These are intriguing questions for future research. Moreover, upcoming studies may include a larger number of contrasting cases. They may also include cases from different contexts. The transactional and relational motives underlying the BDM model can prove useful in explaining cooperation in these situations as well. Finally, conducting quantitative studies to validate the BDM model may provide new interesting avenues for further research.

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Appendix A. Interview protocol

A brief excerpt of the interview protocol is presented below, beginning with the promoter's perspective, followed by the stakeholder's perspective. These example questions provide a glance at how the data was obtained for each of the BDM's elements.

Promoter perspective	**Stakeholder perspective**
Level of Cooperation Can you describe the ease and the level of cooperation between you and the stakeholder?	Level of Cooperation Can you describe the ease and the level of cooperation between you and the promoter?
Issue impact on the information system How important was it for the information system to solve the issue?	Issue impact on the stakeholder How has the issue affected your work?
Stakeholder salience *Power* Which resources did the stakeholder have, that were needed to solve the issue at hand? *Legitimacy* Did the stakeholder have a legitimate right to participate in dealing with the issue? *Urgency* In what way are the interests of the stakeholder directly jeopardized by the issue?	Promoter salience *Power* Which knowledge and skills does the promoter have to develop and implement the EIS? *Legitimacy* Does the promoter have a legitimate right to take control of the process? *Urgency* Is it important for the organization, or promoter, to deal with the issue as soon as possible?
Stakeholder reputation *Power* - In what way are you able to obtain future benefits from the stakeholder by establishing a relation with him/her right now? - How do you appreciate the knowledge or power of the stakeholder, in general? *Legitimacy* Do you think that the stakeholder has a legitimate right to work with you again in the future? *Reliability* Do you think that the stakeholder is willing to work with you again in the future, on a random project?	Promoter reputation *Power* - Do you think that the promoter will be involved potential future issues? - How do you appreciate the power and knowledge of the promoter, in general? *Legitimacy* Do you think that the promoter has a legitimate right to participate in potential future issues? *Reliability* Do you think the promoter will keep your interests and views in mind when he/she has to make decisions in the future? Decisions that may affect you?
Willingness to cooperate with the stakeholder How important was the cooperation with the stakeholder in relation to solving this issue and possibly future issues, when compared to other stakeholders?	Willingness to cooperate with the promoter How important was the cooperation with the promoter in relation to solving this issue and possibly future issues, when compared to other stakeholders?